

APPENDIX A

COPYRIGHT (C) 2001 ENOSYS MARKETS, INC.
ALL RIGHTS RESERVED

```
public void addPaths(XMASElement element) {
5    Vector pathElms = new Vector();
    Vector inputElms = new Vector();
    Integer choice;
    String fullpath = new String(path);
    String pass = new String();

10   if (!select.equals("")) {
        // convert select String to Vector
        input2vector(select, inputElms);

        for (int i = 0; i < inputElms.size(); i++) {
            choice = new Integer((String)inputElms.get(i));
            if (values_data.size() == 0) {
                // we incorporate EXISTS condition only here because it's not possible
                // for an option to bind to an internal node and have a value data
                if ( ((String)values.get(choice.intValue())).equals("any") ||
15                   ((String)values_paths.get(choice.intValue())).equals("any") )
                    return;
                else {
                    if (!((String)condition.get(0)).equals("EX")) {
                        if ( ((String)values_type.get(choice.intValue())).equals("string") )
                            pass += "\\" + (String)values.get(choice.intValue()) + "\",";
                        else
                            pass += (String)values.get(choice.intValue()) + ",";
                    } else {
                        fullpath = path + "." + (String)values_paths.get(choice.intValue());
                        path2vector(fullpath, pathElms);
                        element.checkInsertPath(pathElms, (String)values.get(choice.intValue()),
20                           (String)condition.get(0));
                    }
                }
            } else {
                if ( ((String)values_data.get(choice.intValue())).equals("any") )
                    return;
                else {
                    if ( ((String)values_type.get(choice.intValue())).equals("string") )
                        pass += "\\" + (String)values_data.get(choice.intValue()) + "\",";
                    else
                        pass += (String)values_data.get(choice.intValue()) + ",";
                }
            }
40        }
    }
}
```

```
if (((String)condition.get(0)).equals("EX"))
return;

pass = pass.substring(0, pass.length() - 1);
fullpath = path;

5 // take the value_path of the first choice, all of them must be equal
choice = new Integer((String)inputElms.get(0));

if ( !((String)values_paths.get(choice.intValue())).equals(".") )
// add the value path
fullpath = fullpath + "." + (String)values_paths.get(choice.intValue());

10 // convert path String to Vector
path2vector(fullpath, pathElms);

// get the type and value and generate the subquery
element.checkInsertPath(pathElms, pass, (String)condition.get(0));
15 }
```